



Department of Toxic Substances Control



Matthew Rodriguez
Secretary for
Environmental Protection

Deborah O. Raphael, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

SANTA SUSANA FIELD LABORATORY MONTHLY STATUS REPORT NOVEMBER 2011

This monthly update is to inform the community of Santa Susana Field Laboratory (SSFL) investigation and cleanup activities under the Department of Toxic Substances Control's (DTSC) oversight that have occurred between October 23 and November 22, 2011 and to identify activities that are expected to occur in the next 30 days.

Additional information regarding the SSFL project can be found at DTSC's website:
http://www.dtsc.ca.gov/SiteCleanup/Santa_Susana_Field_Lab/index.cfm

Activities Completed:

Soil Investigations:

US Department of Energy (DOE) Area IV Co-located sampling efforts:

- Field work for the co-located sampling for chemical analysis with the US EPA radiological sampling locations continued in Area IV. US EPA approached their investigation by breaking up the investigation by historical site assessment areas (HSA).

HSA-5C

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results issued (available on DOE and DTSC web sites.)

Sediment Drainage Sampling

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results in being developed.

HSA-5B

- All field work completed

Soil Investigations: (continued)

- 99% of chemical analytical data received and validated. Sampling in this area in September has resulted in outstanding chemical data and validation products.

HSA-5A

- All field work completed
- All chemical analytical data received and validated.

HSA-8N

- All field work completed
- 100% of the chemical analytical data received and validated.

HSA-5D North

- All field work completed
- 100% of the chemical analytical data received with 75% of the data validated.

HSA-6

- Surface sampling is complete.
- Subsurface sampling is 99% complete with four sampling locations at the SRE tarp area remaining.
- 65% of the chemical analytical data received with validation in progress

HSA-7

- All field work completed
- 50% of analytical data received with validation in progress

HSA-3

- All field work completed
- 10% of analytical data received with validation in progress.

HSA-5D South

- All field work completed
- 25% of the analytical data received with validation in progress

HSA-8 South

- Field work mostly completed. Eight locations remain to be sampled.
- No analytical data received yet.

NASA chemical sampling efforts:

- NASA consultant was conducting Field Sampling Plan-1 (FSP-1) soil sampling (Alfa- Bravo Fuel Farm, Coca-Delta Fuel Farm and propellant loading facility (PLF)).

- On November 14, NASA submitted the Final FSP-2 (Ash Pile/Sewage Treatment Plant (AP/STP), SPA, Building 204, and Skyline sites) to DTSC for approval (Stakeholder Technical Roundtable on FSP-2 was held on October 13, 2011.) NASA consultants working on underground utility clearance of FSP-2 sample locations.

Public Outreach:

- On November 9, 2011, DOE hosted a public site tour of HSA 5C and discussed Phase I sampling results.
- On October 25, 2011 and November 15, 2011, DOE hosted the first two meetings of a series of Soils Treatability Study Investigation Group meetings.

Groundwater Investigations:

- Conducted trenching/drilling at various locations near Area II. Additional trenching locations may be proposed based on the evaluation of results of the current program at the Burro Flats Fault near Area II.
- Bedrock Vapor Extraction Work Plan and in-situ Chemical Oxidation Work Plan draft undergoing Boeing internal review.
- Boeing is coordinating with DOE and NASA to finalize the Treatability Study Work Plan based on DTSC comments.
- Drilling source zone groundwater monitoring wells RS-36 and RD-102 at sodium reactor experiment (SRE) Pond
- Completed installation groundwater well RD-100 at Area I Burn Pit.
- Continued groundwater extraction at WS 9A.

Chemical Background Study:

- On November 1, 2011 DTSC and its consultant completed the fieldwork for the Chemical Soil Background Study (Study), including establishing additional locations and collecting soil samples at all planned locations in the China Flat Chemical Background Reference Area (CBRA). Sampling at the Wood Ranch CBRA was completed on July 21, 2011.
- Within the two CBRAs, a combined total of 205 locations, including drainage and non-drainage locations were sampled. Over 670 individual containers were used in each CBRA to collect the soil samples, including primary, duplicate, and other Quality Assurance/Quality Control (QA/QC) samples.

- All the Wood Ranch CBRA samples have been analyzed and approximately 80% of that data validated.
- Approximately 20% of the China Flat CBRA samples have been analyzed. Data validation to begin when laboratory analysis is complete

Feasibility Study: No New Updates

Treatability Studies:

- Boeing submitted responses to DTSC's comments on the treatability study work plans. Boeing is still working on addenda for the bedrock vapor extraction and in-situ chemical oxidation field tests.
- DTSC provided Boeing verbal approval to proceed with the four laboratory treatability tests.

Building Demolition:

- Continued installation of erosion controls at components test laboratory–III (CTL-III), in Group 1B.
- Completed demolition of Groundwater Treatment Systems, Areas I, II, and III.
- Began installing erosion controls at Groundwater Treatment Systems, Areas I, II, and III

Interim Source Removal Actions (ISRA): *(Note: ISRA activities are conducted under the authority of the Los Angeles Regional Water Quality Control Board (LA-RWQCB))*

- DTSC participated in project status calls on November 2 and 16, 2011. On November 2, DTSC reviewed soil confirmation sample results and concurred that soil removal was complete at ash piles/sewage treatment plant (AP/STP) AP/STP-1E1.
- On November 9, DTSC approved the soil confirmation sampling plan for AP/STP-1E2. Confirmation samples were collected November 14 to confirm that cleanup goals were met. Results are expected December 2, 2011.
- On November 10, DTSC with the RWQCB issued an approval letter for soil disposal of cesium impacted soils at expendable launch vehicle (ELV) ELV-1C.
- On November 14, DTSC reviewed radionuclide resample results from AP/STP-1C1, AP/STP-1C2, and AP/STP-1B1. DTSC agreed that radionuclide results for AP/STP-1C1 and AP/STP-1B1 indicated soils could be excavated and disposed as non-hazardous material. DTSC agreed that resampling of radionuclides should

be conducted at AP/STP-1C2 to further evaluate and confirm radionuclide concentrations.

Sitewide: *No New Updates*

Risk Assessments: *No New Updates*

Permits: *No New Updates:*

Activities Proposed for the Next 30 Days:

Soil Investigations:

DOE:

- Area IV Co-located sampling efforts for HSA Subarea 6 – continue co-located sampling for chemical analysis with the US EPA radiological sampling locations
- On December 14, 2011, a DTSC/DOE Phase 3 Chemical Sampling Meeting will be held from 9:30 to noon at the Santa Susana Field Laboratory.
- Continue off-site debris survey work
- Area IV co-located sampling efforts for HSA-6 and HSA-7 – continue co-located sampling for chemical analysis with the US EPA radiological sampling locations.

NASA:

- Limited NASA FSP-2 soil sampling will occur at Building 204 on November 28-30, 2011. This soil sampling is being done in coordination with EPA, who currently occupies Building 204.
- NASA and DTSC will host the FSP-3 public site tour (Alfa and Bravo Test Stands) at SSFL on December 8, 2011.
- In January 2012, NASA plans to conduct remaining FSP-1 soil gas sampling, begin FSP-2 soil and soil gas sampling, and begin FSP-3 soil sampling (pending completion and DTSC approval of FSP-3.)
- The FSP-4 public meeting is tentatively being planned for the final week of January 2012.

Chemical Background Study:

- DTSC will continue to oversee and work with its contractor as the laboratory analyses and data validation efforts.

Groundwater Investigations:

- Continue offsite seeps drilling.
- Complete fault study trenching, followed by data gap drilling at some areas, at various locations within Areas I, III, and IV.
- Continue conducting drilling of source zone wells at Area I Burn Pit, SRE Pond, and Happy Valley Fault areas.
- Continue installation of offsite seeps monitoring well clusters (Northeast drainage near ELV area).

Treatability Studies:

- DTSC anticipates Boeing will submit responses to DTSC's comments and addenda for the treatability study workplans.
- DTSC anticipates receiving the draft Bedrock Vapor Extraction Work Plan and In-situ Chemical Oxidation Work Plan for review.

Building Demolition:

- Complete installation of erosion controls at CTL-III, Group 1B.
- Complete Installation erosion controls at Groundwater Treatment Systems, Areas I, II, and III.

Interim Source Removal Actions: *(Note: ISRA activities are conducted under the authority of the Los Angeles Regional Water Quality Control Board (LA-RWQCB))*

- DTSC will continue to participate in ISRA bi-weekly project meetings. NASA has indicated that they will postpone soil removal at ELV ISRA areas and instead will proceed with excavation at AP/STP-1C1 and AP/STP-1B1 and resampling at
- AP/STP-1C2. SSFL facility will conduct ISRA performance monitoring and BMP subarea monitoring inspections and sampling in Outfall 008/009 watersheds, as necessitated by rain events.

Permits:

- Continue demolition and erosion control actions at the former Groundwater Treatment Systems, Areas I, II and III

Risk Assessment: *No New Updates*

Public Outreach:

- Upcoming PPG meeting: January 25, 2012, 6-8:30 pm at the DTSC Chatsworth Office.
- December 8, 2011 - Technical Discussion & Site Tour for the NASA Field Sampling Plan, Subgroup 3. Meeting will begin at 9:30 am at the SSFL front gate.
- December 14, 2011 - DTSC/DOE - 9:00 am - Status meeting for Phase 3 Chemical Sampling; 1:00 pm - EPA Stakeholder meeting
- DTSC will continue to provide monthly updates regarding the progress of the site investigation and cleanup process to the community.